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Remarks:

Regarding the objection to the title of the application:

In this paper, the applicant cancels the prior title of the application, and presented new, more descriptive title. Withdrawal of the objection is requested.

Regarding the objections to the drawings and specification 'shaft 38':

In the Office Action, the Examiner had objected to the applicant specification and the drawings based on the following reasons:

The applicant requests reconsideration thereof. A review of the applicant's copy of the specification is filed indicates at page 9, line 6 that the proper reference to element "32" was indeed present in the application papers as filed. Relevant part of the applicant specification is reproduced here:

"obstacle the carriage 36 is caused to rotate in the direction dictated by the rotation of the drive shaft 32 until the wheels 15 can turn once more. The reason for rotation of the carriage 36 is that the turning force of "

as seeing the ring, there is reference to "drive shaft 32", which corresponds to the drawings as filed. . It is therefore believed that the basis of the Examiner's objection to this part of the drawings and specification is incorrect. Reconsideration of the propriety of rejection, and its withdrawal is requested.

Regarding the objection to the specification; layout and headers:

While the applicant thanks the Examiner for the helpful suggestion regarding the insertion of headings into the specification, now with reference 37 CFR 1.77(b), that statute notes that the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without

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underlining or bold type, as a section heading. " However the operative term, "should" does not amount to an express requirement, and the applicant respectfully declines to enter the suggested section headings.

Regarding the rejection of claims 18, and 20-21 under 35 USC 112, 2nd paragraph:
In this paper, claim 18 has been amended to delete the term "generally". Claims 20 and 21 have been canceled. Withdrawal of the rejection of these claims is requested.

Regarding the rejection of claims 1-6, and 13-21 under 35 USC 102(b) in view of DE 1813880 to Lindh et al. (hereinafter simply "Lindh"):
In this paper the applicant has entered the limitations of claims 6, 7 and 11 into independent claims 1, 13 and 19 which amendments are believed to render the present grounds of rejection as moot. The Examiner had indicated that prior claims 7 and 11 were amongst claims allowable over Lindh. Accordingly, withdrawal of these claims is requested.

Regarding the rejection of claims 7 – 12 and 22 under 35 USC 103(a) in view of DE 1813880 to Lindh et al. (hereinafter simply "Lindh"), in further view of US 5815880 to Nakanishi (hereinafter simply "Nakanishi"):

The applicant respectfully traverses the Examiner's rejection of claims 7-12 and 22 as being obvious in view of the combined Lindh and Nakanishi references.

Prior to discussing the merits of the Examiner's position with respect to "obviousness", the undersigned reminds the Examiner that the determination of obviousness under §103(a) requires consideration of the factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1 [148 USPQ 459] (1966): (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the pertinent art; and (4) secondary considerations, if any, of nonobviousness. More recently in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007), the Supreme Court held that The Supreme Court in KSR noted that the analysis supporting a rejection

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under 35 U.S.C. 103 should be made explicit. The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396. Exemplary rationales that may support a conclusion of obviousness include:

- (A) Combining prior art elements according to known methods to yield predictable results;
- (B) Simple substitution of one known element for another to obtain predictable results;
- (C) Use of known technique to improve similar devices (methods, or products) in the same way;
- (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- (E) "Obvious to try" - choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;
- (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. See MPEP 2141 (III).

A methodology for the analysis of obviousness was set out in *In re Kotzab*, 217 F.3d 1365, 1369-70, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000) A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a

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hindsight syndrome wherein that which only the invention taught is used against its teacher."

It must also be shown that one having ordinary skill in the art would reasonably have expected any proposed changes to a prior art reference would have been successful. *Amgen, Inc. v. Chugai Pharmaceutical Co.*, 927 F.2d 1200, 1207, 18 USPQ2d 1016, 1022 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894, 903-04, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988); *In re Clinton*, 527 F.2d 1226, 1228, 188 USPQ 365, 367 (CCPA 1976). "Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure." *In re Dow Chem. Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988).

At page 5, the Examiner noted that Lindh failed to demonstrate a locking means actuated by an actuation element or by a detent means. The Examiner then continued to state that Nakanishi unit (2) included sensors (3B, 3C) on the periphery to sense an obstacle, wherein the apparatus would be caused to move backwards or turn around, but that Nakanishi failed to disclose locking means. The Examiner then stated that :

"It would have been obvious at the time applicant invented the claimed apparatus and process to incorporate sensors as disclosed by Nakanishi into the apparatus and process of DE 1813880 ("Lindh") for the purpose to change the course of the apparatus by detecting obstacle with well-known sensors. Nakanishi discloses to overridden the obstacle by sensing only with one sensor. Therefore, one of ordinary skill in the art would've arranged to be overridden the obstacle. Connecting with electrical means, detent means and inter engaging projection are well known in the art. Therefore, one of ordinary skill in the art would have use it in the apparatus of DE 1813880 for the purpose of efficient movement of the device and surface. The shape defined in the claimed invention is merely design choices that can be suitably selected by designing person according to the necessity, which cannot be considered to have critical significance."

The applicant traverses the foregoing allegations by the Examiner that the currently claimed invention would be obvious over the combined Lindh and Nakanishi references. First is a noted that the drive wheels of Nakanishi are to drive wheels, which are

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independently operated, and which are independently close to move by independent electrical motors. Changes in the direction of the Nakanishi device are caused by changes in the rotational speed of Nakanishi's left and right driving wheels. This is noted at column 3 of Nakanishi wherein is stated:

Moving unit 1 includes a right driving wheel 1A, a left driving wheel 1B, a front guiding wheel 1C, and a rear 5 guiding wheel 1D. Right driving wheel 1A and left driving wheel 1B are driven independently of each other by motors not shown in the drawings. The right and left driving wheels 1A and 1B cause the main unit to move, as well as change the orientation of the main unit by changing the relative 10 rotational speeds of the right and left driving wheels. Each

Thus, it is contended that a skilled artisan considering Lindh would not consider Nakanishi due to this important difference. Although Lindh's two drive wheels share a common drive axis, which also dictates the same rotational speed of each of Lindh's two drive wheels, the same cannot be said of Nakanishi operates his device by having a controllable, and different speeds of his left and right driving wheels. A skilled artisan would not combine Lindh's drive mechanism which requires the rotation of his supporting platform 11 on which his two drive wheels are mounted, with the "independent drive" drying system of Nakanishi.

Nakanishi does disclose "lower contact sensors 3B" and "upper contact sensors 3C" which operate to cause the Nakanishi device to enter an "avoid" operation, or a "move over" operation. (Nakanishi, col. 7, lines 23 – 48). Such "contact sensors" would orderly provide a means for transmitting the proximity of a device to an obstacle (e.g., wall) however, in Nakanishi these outputs of his contact sensors or electrical signals which are transmitted to the control means of Nakanishi's device, which in the sponsor preprogrammed logic or algorithm, causes different control signals to be separated to the discrete drive motors of Nakanishi's left and right driving wheels. However there's nothing in Nakanishi which operates as a "locking means". Similarly, there is nothing in Lindh which contains neither sensors, nor any element which operates as "locking means".

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The applicant respectfully reminds the Examiner that a "hindsight reconstruction" of applicant's claimed invention it remains impermissible. Is contended that Examiner's characterizations of the Lindh and Nakanishi devices are an improper attempt at a "hindsight reconstruction" of the applicant's invention which is based on a retrospective assemblage of the applicant's claimed invention wherein there lacks an appropriate teaching or suggestion. Such is believed to be inappropriate. In *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992), the Federal Circuit stated:

"It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. *In re Gorman*, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." (quoting *In re Fine*, 837 F.2d at 1075, 5 USPQ2d at 1600)

Accordingly, reconsideration of the propriety of the rejection of the indicated claims, and its withdrawal, is respectfully requested.

Should the Examiner in charge of this application believe that telephonic communication with the undersigned would meaningfully advance the prosecution of this application, they are invited to call the undersigned at their earliest convenience.

The early issuance of a *Notice of Allowability* is solicited.

PETITION FOR A ONE-MONTH EXTENSION OF TIME

The applicants respectfully petition for a one-month extension of time in order to permit for the timely entry of this paper. The Commissioner is hereby authorized to charge the fee to Deposit Account No. 14-1263 with respect to this petition.

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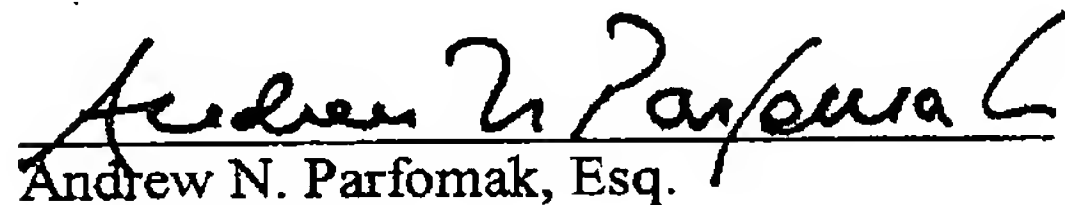
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CONDITIONAL AUTHORIZATION FOR FEES

Should any further fee be required by the Commissioner in order to permit the timely entry of this paper, the Commissioner is authorized to charge any such fee to Deposit Account No. 14-1263.

Respectfully Submitted;



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07. Dec. 2010
Date:

CERTIFICATE OF TELEFAX TRANSMISSION UNDER 37 CFR 1.8

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Allyson Ross

07. Dec. 2010
Date

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